STATEMENT OF

FORMER SPEAKER OF THE HOUSE NEWT GINGRICH,

FOUNDER OF THE CENTER FOR HEALTH TRANSFORMATION*,

BEFORE THE

SUBCOMMITTEE ON THE FEDERAL WORKFORCE

AND AGENCY ORGANIZATION

WEDNESDAY, MARCH 15, 2006

Chairman Porter, Ranking Member Davis, and members of the Subcommittee:

I appreciate the opportunity to testify today about how health information technology will help us build a 21st Century Intelligent Health System that saves lives and saves money for all Americans.

In a 21st Century Intelligent Health System, every American will have the tools to maximize their health, happiness, and security. Every American will have insurance coverage and access to the care that they need when they need it. Every American will be empowered to make responsible decisions about their own health and healthcare. Every American will own their health records. Every American will have a right to know the price and quality of medical services.

In a 21st Century Intelligent Health System, the focus will be on prevention and wellness. Innovation will be rapid, and the dissemination of health knowledge will be in real time and available to all Americans. And

* The Center for Health Transformation is a collaboration of transformational leaders dedicated to the creation of a 21st Century Intelligent Health System in which knowledge saves lives and saves money for all Americans. For more information on the Center and our Health Information Technology project, please contact project director David Merritt at 202-375-2001.

reimbursement for health care will be a function of quality outcomes, not a function of volume.

If healthcare in America is to survive and transcend the challenges of the future, we must build this system. It will require fundamental changes of the health system we know today, but they are changes that are absolutely necessary. And to get there, the widespread adoption of health information technologies is essential.

In this testimony, there are eight key messages that I urge this subcommittee and the Congress to act upon. They will help modernize healthcare through information technology and build that 21st Century Intelligent Health System.

1. Paper Kills

Paper kills. It is that simple. Instead of saving lives, our current paper-based health system is taking them. With as many as 98,000 Americans still being killed by medical errors every year, ridding the system of paper-based records and quickly adopting health information technology will save lives and—at the same time—save money.

This is not just a theory. Examples abound of the dramatic benefits of health information technology. The Indiana Heart Hospital in Indianapolis built a new facility that is totally paperless, and they reduced medication errors by 85%. If we could achieve the same results nationwide, we would save more than 6,000 Americans every year, since medication errors kill nearly 7,500 citizens annually, according to the Institute of Medicine. Indiana Heart Hospital's new system also reduced physician administrative time by 30%. This means that healthcare providers can now spend more time with their patients and provide them with higher quality care.

PeaceHealth is a billion-dollar hospital system with 1.4 million patient records with six facilities in Alaska, Washington, and Oregon. With the help of IDX (now GE Healthcare), a member of the Center for Health Transformation, PeaceHealth has built something truly transformational called the Community Health Record. The Community Health Record contains all the information a provider needs to care for a patient—from lab

results to MRI images to cardiology charts. It is secure, HIPAA-compliant, and totally online. Patients can access their records from anywhere via a secure connection—individuals are able to refill prescriptions, correspond via email with doctors, check lab results, schedule appointments, and request referrals. Every stakeholder has access to these records, including doctors, nurses, case managers, health plans, and independent physician groups.

What are the results? Adverse drug events have been reduced by 83 percent, as documented by a pilot study in Eugene, Oregon. Allergy lists are close to 100 percent complete, thanks to an expert technical rule that flags missing information. Compliance with diabetic guidelines has tripled in three PeaceHealth facilities, thanks to a combination of online disease management tools and the involvement of diabetes educators. Hemoglobin A1C levels of less than 7, the target level for diabetes control, improved from 44 percent in 2001 to more than 60 percent last year. And LDL levels of less than 100, the target range, jumped from 28 percent in 2001 to 52 percent last year.

Another example is the Central Utah Multi-Specialty Clinic. Allscripts, also a member of the Center for Health Transformation, built the ambulatory electronic health record for this clinic, which has 70 physicians, nine locations, and cares for more than 200,000 patients. In its first year of use, they saved $1 million through improved efficiencies and automation. They expect to save more than $14 million in five years. That is real money that can be put back into the practice, such as hiring more doctors, nurses and healthcare providers, or buying new equipment. This can directly increase consumers' access to care and dramatically advance the quality of care they receive.

These are real results that are happening today. But they are happening on far too small of a scale.

The number one priority of every stakeholder in healthcare should be to get these technology into the hands of every healthcare professional in the country.

Once health information technology is ubiquitous, we will have erected a core building block of a 21st Century Intelligent Health System.

2. *Personal Health Records Are A Significant Step in Building a 21st Century Intelligent Health System*

Personal health records are a significant step forward in our efforts to build a 21st Century Intelligent Health System—a system that is enabled by an interoperable national health information network.

Hospital admissions, physician office visits, diagnosis codes, procedure codes, pharmacy orders, and other valuable pieces of information are often electronically captured by a health plan through the claims process. Claims data, particularly when combined with other information such as family history, allergies, and medication history, can be a powerful foundation on which to build a personal health record that will help improve individual health and healthcare.

By introducing the Federal Family Health Information Technology Act of 2006 (H.R. 4859), Chairman Porter and Representative Lacy Clay complement existing efforts already underway in the health plan community to deploy these consumer-centric tools. Insurers are actively building and deploying interfaces that consumers can securely use for decision support, education on chronic conditions, and email with their providers. Using claims data, these health plan personal health records are often personalized with an individual's medical history, contact information for their physicians, and tailored information for their health conditions.

Center for Health Transformation member America's Health Insurance Plans (AHIP), the trade association whose members provide health benefits to more than 200 million Americans, published a lengthy report in November 2005 with detailed case studies of health plan efforts to promote consumer-centered health information technology such as the personal health record. AHIP itself is actively developing an industry-wide, interoperable personal health record that houses an individual's claims data. This effort will create an interoperable health plan personal health record by allowing individuals' claims history to electronically travel with them from insurer to insurer.

Group Health Cooperative in Washington state has developed a sophisticated interface for its members. MyGroupHealth.com gives consumers the opportunity to view their online medical records; consult with their doctors via email; order and renew prescriptions; schedule and cancel appointments; obtain lab test results and an explanation of results; and access a searchable drug reference library. According to AHIP, nearly 200,000 Group Health members have registered for MyGroupHealth.com, and more than 23,000 secure emails are exchanged between consumers and healthcare professionals every month.

Blue Cross Blue Shield of Florida and Humana, a member of the Center for Health Transformation, have partnered to roll out a statewide health plan personal health record to better inform physicians of their patients' health status. Using the existing Availity infrastructure, which all network physicians with Humana and BCBS of Florida currently use to check eligibility, a button will be added that will allow physicians and nurses to print a simple two-page summary with a patient's medication history, lab order history, diagnosis codes, and provider information. This effort lays a foundation upon which both health plans and healthcare providers can add on functionality to make the technology more sophisticated.

In this program, if a consumer who currently has coverage with Humana but changes plans and selects BCBS of Florida, their personal health record will follow them. This multi-plan approach is the only one of its kind in the country. It is the beginning of a permanent personal health record that follows the consumer wherever they go.

Nearly a third of Floridians are covered by Humana and BCBS of Florida, and these two plans are actively recruiting other insurers to join the effort, including Medicaid. By adding Medicaid beneficiaries to the project, more than half of the state's population will be involved[1].

Companies like HealthTrio, an innovative technology company that is also a member of the Center for Health Transformation, offer powerful IT solutions to health insurers today. As you will hear from Dr. Malik Hassan

[1] Unfortunately, an antiquated CMS rule restricts how much information the Florida Medicaid program can share. If a Medicaid beneficiary leaves the program and obtains private coverage, current law prohibits Florida from sharing their claims history with the new insurer. This is just one example of many where antiquated and bureaucratic thinking stands in the way of progress.

of HealthTrio, his new technology uses advanced SNOMED coding to collect data from disparate sources, which can be used to measure outcomes, improve clinical data protection, combat waste and fraud, and quickly display massive amounts of disparate data in a useable way.

Health plans are leading these initiatives across the country. H.R. 4859 would make these kinds of efforts a standard benefit to all federal employees enrolled in the Federal Employees Health Benefits Program (FEHBP).

The functionality of personal health records will grow over time. H.R. 4859 outlines a roadmap that begins with making basic patient claims information available to both individuals and physicians. Health plans will then allow their members to add content to the record, which is a functionality that currently exists with many health insurance plans. Like the AHIP effort, when an individual moves from one FEHBP carrier to another, their full personal health record and all its contents will follow them to their new insurer. H.R. 4859 codifies this level of health plan interoperability.

Soon, these personal health records will allow physicians, hospitals, and laboratory companies the ability to add information upon request by the member. Rather than just having information on the laboratory tests that the health plan paid, the personal health record will house the actual test results themselves. Physician offices and hospitals could connect their existing electronic health records to synchronize data between their system and the consumer's personal health record. Physician notes, transcriptions, and other clinical information that a physician or hospital electronic health record captures could complement the data the consumer and health plan enter. For those clinicians and facilities without an existing electronic health record, this could play a significant role in moving them into the 21st century.

By deploying a personal health record for every federal employee covered by FEHBP, we can harness vast amounts of electronic claims data that exist today that could be the building blocks of a more sophisticated system. With passage of H.R. 4859, we could see tremendous progress over

the next five years in the advancement of consumer-centered personal health records.

3. The Federal Government Can Dramatically Improve the Health of all Federal Workers Covered under FEHBP through Consumer-Centered Personal Health Records

The Federal Government can and should help lead in the creation of a 21st Century Intelligent Health System, particularly through its role as the nation's largest purchaser of healthcare, which is why Chairman Porter and Representative Clay should be applauded for introducing the Federal Family Health Information Technology Act.

By using markets—and not mandates—to modernize healthcare, H.R. 4859 is a significant step forward because it makes individual-centered personal health records a part of the suite of benefits offered to federal employees.[2]

In essence, H.R. 4859 directs the federal government to say to its suppliers, in this case the insurance carriers, "if you want to do business with us, you must create a personal health record for each federal employee as a part of your insurance package." Each individual health insurance carrier can decide on its own whether to accept this requirement or not.

This will be no different than the requirements any other supplier would expect to see when they negotiate with their customers, whether they are the federal government or General Motors. In fact, all large employers and healthcare purchasers should demand that their health insurance carriers improve their performance, service, and technology—beginning with the federal government.[3]

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[2] With more than nine million federal employees, the Office of Personnel Management (OPM) administers the world's largest employer-sponsored group health insurance program. From dental and vision benefits to healthcare coverage and long-term care insurance, more than 350 insurance carriers do business with the FEHBP. Like any other employer, OPM negotiates annually with each carrier over price, premiums, coverage, and other services that will be part of FEHBP.

[3] Using the Federal Government's purchasing power–not its regulatory power–is the right approach to affect change. The Centers for Medicare and Medicaid Services (CMS) should do the same with its suppliers: health insurance companies, doctors, hospitals, and other healthcare professionals that provide care to the tens of millions of Medicare and Medicaid beneficiaries. CMS should say to its Medicare Advantage plans, we are not going to do business with you unless you provide a personal health record for

4. *The Individual Owns Their Personal Health Record and All of their Health Data*

With the rapid development of individual-centered health information technology such as the personal health record, the question then arises, "Who owns the data?" Doctors, hospitals, and other providers often believe that they own the encounter data because they saw the patient and collected the information. Employers and health plans often believe that they own the data because they paid for the services. Laboratory companies, pharmaceutical manufacturers, and other stakeholders often believe they own the data because they ran the tests or provided a product or service to the patient.

All are correct to some extent, but they forget that there is one constant variable running through all these scenarios: the individual. The individual owns the data, which they can then allow each stakeholder to have a copy of their data.

Individuals have the right to control—and must have the ability to control—who can access their personal health information. All health information technology should be deployed to improve individual health, not to protect the status quo of proprietary claims to data. In this case, where federal employees may decide to activate a personal health record, each stakeholder should be given equal access to the record—by the consumer—in the course of delivering care.

5. *The Individual's Right to Know Price and Quality of Health Services is Dependent Upon Widespread Adoption of Health Information Technology*

Every American has the fundamental right to know the price and quality of health and healthcare services *before* making a purchasing decision.

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every beneficiary you cover. CMS should say to physicians, we are not going to do business with you unless you practice evidence-based healthcare. CMS should say to hospitals, we are not going to do business with you unless you make quality and performance data of your hospital available. And CMS should say to all of them, we will not do business with you unless you make public your prices.

An individual's right to know price and quality goes hand in hand with health information technology. Electronic physician offices, wired long-term care facilities, and modernized hospitals can easily capture and report price and quality information. But they must first have the capability to capture information. This is yet another reason why the adoption of health information technology is so vital.

Americans are accustomed to leading their lives empowered with the responsibility and knowledge to determine what is best for them. Outside of healthcare, we live in the world of Expedia, Travelocity, CraigsList and Consumer Reports. Within minutes, any citizen can find price, cost, and performance data on an infinite number of products and services. This transparent system puts the consumer squarely at the center of the market—and as a result, consumers have more choices of greater quality at lower cost.

This is absent in healthcare. Individuals are at the mercy of antiquated system that has not kept pace with the technological advancement, transparency, and modernization that nearly every other industry has embraced. The information age has left healthcare behind, and the consequences are tragic: medical errors continue to kill thousands; costs continue to rise faster than inflation; the number of uninsured continues to climb; and consumers still remain at the edges of the system. We can change this. But in order to do so, informed and proactive consumers must be at the center of the system.

In most cases the current healthcare system prevents Americans from comparing the price and the quality of the various health services, products, or providers they are considering. This situation is tantamount to asking someone to shop for a car when the dealer hides the prices, rolls back the odometers, and does not disclose that their lot is filled with a fleet of rental cars. We cannot expect Americans to be better consumers of healthcare if we do not provide them with information about the quality of the providers they see and the real prices of the services they receive.

For more information on this important issue, please see my testimony I provided on this subject to the House Energy and Commerce Committee

Subcommittee on Health on March 15, 2006. This is available at www.healthtransformation.net.

6. Additional Congressional Actions Can Spur Adoption of Life Saving, Money Saving Health Information Technology

We know that health information technology can help transform our system. But we can only get there if physicians and other providers adopt the technology. It cannot happen without them.

In the August 2005 issue of the *Annals of Internal Medicine*, Dr. Richard Baron described his recent move from a paper-based office to an electronic practice:

> "We recently implemented a full-featured electronic health record in our independent, 4-internist, community-based practice of general internal medicine… Its financial impact is not clearly positive; work flows were substantially disrupted; and the quality of the office environment initially deteriorated greatly for staff, physicians, and patients. That said, none of us would go back to paper health records, and all of us find that the technology helps us to better meet patient expectations, expedites many tedious work processes (such as prescription writing and creation of chart notes), and creates new ways in which we can improve the health of our patients."

Dr. Baron and his colleagues should be applauded for their leadership. Despite the costs and headaches, they charged through the uncertainty and modernized their practice. This is no small accomplishment for today's physicians.

According to a recent study by the Centers for Disease Control and Prevention, only 17 percent of all physicians currently use electronic health records. There is even less adoption by smaller physician practices. The lack of widespread adoption among physicians is primarily due to the uncertainty over who can and will pay for the necessary infrastructure. The vast majority would like to invest in life-saving technologies, but they face real financial and practical challenges in implementing such systems.

Many physicians in small group practices and those who are solo practioners find the costs to be prohibitively expensive. Some estimates put the initial cost of an advanced electronic health record system from $33,000 to $86,000 per doctor, with annual maintenance costs often running in the tens of thousands of dollars. Hardware, software, tech support, and data storage are huge investments for small business owners like group practices and solo physicians.

But help is out there.

a. Enhanced Tax Deductions for Healh IT Equipment Purchases

Representative Phil Gingrey introduced legislation, H.R. 4641, which increases the tax deductions offered to healthcare providers who purchase an electronic health record system. It raises the first year immediate equipment deduction from $100,000 to $250,000. The bill also increases the maximum annual total of deductible property from $400,000 to $600,000. While it is not the direct financial assistance that many physicians desire, it is something.

b. CMS Health Care Quality Demonstration Program

CMS announced last year the creation of the Medicare Health Care Quality Demonstration Program (also known as the 646 demonstrations). A major focus of these five-year demonstrations will be to improve the delivery of care in ambulatory offices by testing significant changes to payment and reimbursement, as well as performance measures and the practice of evidence-based medicine. Health information technology, and reimbursing for its use, will be front and center.

c. Quality Improvement Organizations

Every state has a Quality Improvement Organization that can assist small- and mid-sized physician practices with their technology needs. Through a new three-year contract with the Department of Health and Human Services, these private organizations help physicians assess the benefits and overcome barriers to adopting health information technology. According to the American Health Quality Association, the trade association

for Quality Improvement Organizations, in the six months since the program began in August 2005, more than 2,000 physician practices are already working with their local QIO. From readiness assessments and cost analyses to guidance on advanced functionality and workflow redesign, physicians can utilize their expertise and experience—at no charge. It is a "no-brainer" for physician practices across the country to tap into this valuable resource.

d. Reforming Stark and Anti-Kickback Barriers to Health IT Adoption

Representatives Nancy Johnson and Nathan Deal introduced H.R. 4157, which, among other things, addresses the financing question by breaking down the barriers of Stark and Anti-kickback laws as they relate to health information technology. Representative Lacy Clay introduced H.R. 4832 which also provides clear, concise, and workable reforms to Stark and Anti-kickback laws. Large hospital systems and other entities, such as pharmaceutical manufacturers and clinical laboratories, generally have the resources to provide their community physicians, clinics, and rural hospitals with the hardware, software, and expertise to get them into the information age—and beyond the clipboard. Current Stark and Anti-kickback laws prohibits these organizations from collaborating with community physicians and other facilities on health information technology. Representative Johnson's and Representative Clay's bills correct this unintended consequence.

H.R. 4859 attempts to address the financing issue in a creative way. The bill proposes the creation of a trust fund to be administered by the Office of Personnel Management. Any organization could donate to the trust, such as pharmaceutical manufacturers, laboratory companies, and foundations. The funds would then be allocated to the health plans that would in turn provide the funds to its network providers to invest in health information technology.

This approach is complicated, cumbersome, and bureaucratic. A far easier approach is to reform Stark and Anti-kickback laws to allow organizations to directly collaborate with physicians on their health information technology needs. There is no good reason why an entirely new

bureaucratic program should be created when a simple one-page fix to existing law would accomplish the same goal.

Members of the Center for Health Transformation, along with outside groups from a wide range of industry perspectives, have drafted clean, concise, and workable exceptions to 42 U.S.C. Section 1320a-7b(b)) and 42 U.S.C. Section 1395nn. These proposals would break down the barriers of Stark and Anti-kickback and allow collaboration on health information technology, while retaining their original intent of rooting out corruption and fraud.

In the end, all of these approaches are band-aids, not permanent fixes. The Congress and CMS should immediately begin the process of fundamentally reforming the way healthcare providers are paid for their services. Providers need long-term, predictable revenue streams that are tied to the investment in and use of health information technology. But payment reforms cannot stop with health information technology. They must also address the quality, efficiency, and appropriateness of care that all clinicians provide.

7. Ensuring Accurate Scoring by the Congressional Budget Office Can Dramatically Expedite the Adoption of Life Saving, Money Saving Health Information Technology

Financing the adoption of health information technology could be rapidly expedited with reimbursement reform at CMS. But it might be expedited even more quickly through reforming the scoring processes at the Congressional Budget Office (CBO). Ensuring more accurate scoring at the CBO will lead to a dramatic improvement in American health and health care. Doing so will literally save thousands of American lives and billions of their tax dollars.

The CBO, which was created to serve as Congress' budget and economic adviser, has long used outdated models to analyze the costs of proposed legislation. These models ignore the economic growth, efficiencies, and cost savings that result from implementing innovative and transformational policies. This mentality pervades similar agencies as well,

like the Office of Management and Budget, the Joint Tax Committee, and the Treasury Department.

Today, we spend billions on government programs that are financial black holes, while at the same time the CBO will not properly score legislation that would actually reap dramatic improvements—both financially and socially.

For instance, the Health Alliance Plan and Henry Ford Health System in Southeastern Michigan partnered with the Big Three automakers, who are all members of the Center for Health Transformation, to implement electronic prescribing in the region. In the first 12 months of the program, the technology automatically caught more than 85,000 prescriptions that generated drug-interaction or allergenic alerts. The lives saved and suffering avoided in just one year is worth the investment.

The financial results are equally amazing. According to the Henry Ford Health System, the $1 million start-up investment generated a $3.1 million savings, primarily due to increased generic drug utilization. Generic use jumped by 7.3% because of the automatic alerts that physicians receive when they begin to prescribe a branded drug if a comparable generic is available.

If federal legislation were introduced to wire the nation's physician offices for electronic prescribing, the savings would be breathtaking. The savings electronic prescribing would generate in Medicare alone would go a long way towards balancing the federal budget.

The way the CBO scored Senate bill 1418, the Wired for Health Care Quality Act, is another example of how bad scoring methods can hurt good policies. The bill contains grant funding for connecting physicians and creating community networks, which the CBO scored to cost $652 million from 2006 through 2010. Notwithstanding the overwhelming evidence that health information technology dramatically improves the quality of care while saving money, the CBO score did not incorporate any macroeconomic savings in its analysis. The CBO provided a four-page overview of the federal dollars that would be spent, but not a word on the anticipated savings. As a result of the score, the upfront costs for providing health

information technology funding appear enormously high and therefore may unnecessarily discourage Congressional support.

Tennessee is one of several states that has shown bold leadership in introducing health information technology into Medicaid. Within the year, every Medicaid beneficiary will have an electronic health record. Tennessee officials project that for every $1 spent on the new technology in its first years of operation, the state will save $3 to $4—from reductions in duplicate tests, adverse drug effects, and unnecessary inpatient admissions. They estimate the savings on this investment will grow to at least 9-to-1 as the number of doctors using the system increases.

The CBO will not score savings—from the electronic prescribing outcomes and the Tennessee estimates to countless other examples of investment in health information technology saving lives and saving money. Ignoring the savings and outcomes from capital investments is foolish, much like trying to save money by refusing to change the oil in your car. Nearly every member of Congress will vote for a bill if it improves the lives of their constituents and saves money at the same time, but they are unlikely to vote for a bill that is simply scored as costing the millions of dollars. This backward approach is a significant barrier to passing legislation that will dramatically improve patient safety and drive down health care costs.

8. The Private Sector Should Take the Lead Role in Developing Data Standards For Health Information Technology

Many healthcare providers worry about the lack of data standards for these technologies, particularly electronic health record systems. Today, if a facility or doctor invests in a sophisticated system, they are unable to electronically share patient data with others, even though their patients will likely have many other touchpoints in the system. In essence, they have created their own silo, and they fear that their technology will be obsolete once there are data standards that connect all the silos.

This fear is not unjustified, but it is overblown. The United States did not become the most powerful country in history because we let technological challenges stop us. Space exploration, discovering new energy sources, developing vaccines, and millions of other successes prove

that when faced with complex technological hurdles, we will overcome them. In fact, when you combine our scientific and technological expertise with our entrepreneurial drive and the opportunity to make money, there is no doubt that we will solve the interoperability dilemma. And we will do so with the current systems in mind.

H.R. 4859 addresses interoperability by requiring the personal health records to conform with data standards of interoperability adopted by the Office of Personnel Management. The bill states that data standards "shall be consistent with any standards for interoperability of electronic health records developed by ONCHIT,"(the Office of the National Coordinator for Health Information Technology), and the Office of Personnel Management shall consult with ONCHIT in the implementation.

This language gives far too much authority to the Office of Personnel Management to develop data standards. They should not be in the business of setting interoperability standards, even if they are "consistent" with those set by the Office of the National Coordinator. The data standards embedded into any personal health record through the FEHBP should be determined by health information technology experts, not health benefits experts.

The private sector, particularly companies that develop health information technology products, should take the lead role in developing these standards. The Electronic Health Record Vendors Association is a group of more than forty technology companies. It is lead by industry innovators like Siemens, GE Healthcare, and Allscripts, all of which are members of the Center for Health Transformation.

The Vendors Association unanimously approved an updated Interoperability Roadmap just last month that outlines workable and pragmatic approaches. The Vendors Association, as well as other industry groups and experts, are actively working in conjunction with or as part of Federal efforts on data standards and interoperability, such as Secretary Leavitt's American Health Information Community.

The Office of Personnel Management should follow the leads of others in this area, not be empowered to act on its own.

In the debate about moving to an electronic system, technology is the easy part. Through the Internet, fiber-optic cables, and broadband connectivity, the technology exists to build a national, interconnected system. It is the political, financial, proprietary, and cultural battles that will make this transformation much more difficult. These are significant obstacles—but they can be overcome.

Looking Ahead

We are on the cusp of enormous change in health and healthcare. If you look at the typical interaction a consumer has with the healthcare system, it does not differ fundamentally from the typical encounter a generation ago. The clinical side has certainly changed dramatically with stunning advances in medical technology, but the administration of healthcare is at a stand-still.

We must have in healthcare the same level of technological advancement that we embrace in all other sectors of society. Change of this magnitude is never easy. It is always disruptive. It replaces existing paradigms, upsets comfortable routines, and creates uncertainty. It will force entrenched stakeholders to change. But the level of difficulty should not dissuade us from progress, because in the end our goal is a 21st Century Intelligent Health System—a fully interoperable, interconnected healthcare system that saves lives and saves money for all Americans. This system will improve individual health, reduce costs, and build a brighter future for all Americans.

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